
U.S. Department of the Interior • U.S. Geological Survey

MINERAL INDUSTRY SURVEYS

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FLUORSPAR IN THE FOURTH QUARTER 1996

Preliminary numbers for 1996 indicate that U.S. reported consumption was essentially unchanged, but overall fluorspar imports decreased, as compared to 1995. Imports of acid grade actually increased, but imports of metallurgical grade decreased quite significantly from 87,700 metric tons in 1995 to 38,900 tons in 1996. This decrease was evidence of increased consumption of material from the National Defense Stockpile (NDS) in the metallurgical and ceramic markets.

The only sale from the NDS during the fourth quarter was previously reported in the third quarter fluorspar report. It was the sale in December 1996 of 32,700 tons (36,000 short dry tons [sdt]) of acid grade for an approximate value of \$3,000,000 made to Seaforth Minerals & Ore Co. and to Sogem. According to Defense National Stockpile Center (DNSC) news releases, subsequent sales of metallurgical grade were made in January and February 1997. In January, the NDS sold about 27,200 tons (30,000 sdt) of metallurgical grade to Aimcor of Pittsburgh, PA, and to Sogem of New York, NY, for an approximate market value of \$1,200,000. In February, the NDS sold an additional 12,700 tons (14,000 sdt) to Aimcor for an approximate market value of \$574,000. According to the monthly Summary of Commodities report distributed by DNSC, material shipped to customers during the fourth quarter totaled 36,900 tons (40,700 sdt) of metallurgical grade and 17,700 tons (19,500 sdt) of acid grade. Not counting the material sold in January and February 1997, at the end of the fourth quarter

1996, the NDS inventories authorized for ultimate disposal were as follows: 320,000 tons (353,000 sdt) of acid grade, 183,000 tons (202,000 sdt) of metallurgical grade, 97,000 tons (107,000 sdt) of nonspecification metallurgical grade, and 680 tons (750 sdt) of nonspecification acid grade.

The sales authorization for fluorspar for the current fiscal year has been revised again. The revised Fiscal Year 1997 Annual Materials Plan states that effective April 1, 1997, the DNSC will be authorized to sell 163,000 tons (180,000 sdt) of acid grade and 45,400 tons (50,000 sdt) of metallurgical grade. This authorization is for all of fiscal year 1997, which includes sales completed Oct. 1, 1996, to date. The DNSC has currently sold about 41,700 tons (46,000 sdt) of acid grade, which leaves about 121,000 tons (134,000 sdt) authorized for sale prior to Oct. 1, 1997. The DNSC has sold about 39,900 tons (44,000 sdt) of metallurgical grade, which leaves about 5,400 tons (6,000 sdt) authorized for sale prior to Oct. 1, 1997. All sales have come from the NDS depots at Pine Bluff, AR, and Memphis, TN.

The sale of the Ozark-Mahoning plant facilities at Rosiclare, IL, by Elf Atochem North America were finalized. The new company is operating under the name Hastie-Sogem Minerals and is selling both metallurgical-and acid grade fluorspar. The company is drying and bagging fluorspar purchased from the NDS.

TABLE 1
SALIENT FLUORSPAR STATISTICS 1/

(Metric tons unless otherwise specified)

	Fourth quarter 1995	First quarter 1996	Second quarter 1996	Third quarter 1996	Fourth quarter 1996	Total year to date 1996
Shipments	W	W	--	--	--	W
Imports for consumption	122,000	179,000	118,000	127,000	89,200	513,000
Value per ton, c.i.f. U.S. port, acid grade	\$131.00	\$140.00	\$141.00	\$145.00	\$142.00	\$142.00 2/
Value per ton, c.i.f. U.S. port, metallurgical	\$107.00	\$96.00	\$97.00	\$99.00	\$120.00	\$103.00 2/
Exports	6,510	9,180	6,950	17,500	28,300	61,900
End of quarter stocks: consumer 3/	92,000	105,000	103,000	117,000 r/	117,000	117,000
Fluorspar equivalent of imported hydrofluoric acid 4/	18,100	31,000	39,800	34,600	18,100	123,000
Fluorspar equivalent of imported cryolite	1,680	1,840	2,430	1,750	1,570	7,590
Quarterly reported fluorspar consumption	135,000	143,000	119,000	140,000 r/	125,000	527,000

r/ Revised. W Withheld to avoid disclosing company proprietary data.

1/ Data are rounded to three significant digits.

2/ Average value for year to date 1996.

3/ Does not include material purchased from the National Defense Stockpile by traders or indirect consumers.

4/ Does not include hydrofluoric acid from foreign trade zone.

TABLE 2
CONSUMPTION OF FLUORSPAR BY END USE AND ASSAY RANGE 1/
(DOMESTIC AND FOREIGN IN THE UNITED STATES)

(Metric tons)

End use or product	Third quarter 1996			Fourth quarter 1996			1996 Year to date
	More than 97% calcium fluoride	Not more than 97% calcium fluoride	Total	More than 97% calcium fluoride	Not more than 97% calcium fluoride	Total	
Hydrofluoric acid and aluminum fluoride	128,000	--	128,000	113,000	--	113,000	477,000
Basic oxygen furnaces	--	2,480	2,480	--	2,580	2,580	11,900
Electric furnaces	W	5,650	5,650	W	4,890	4,890	19,200
Other uses or products 2/	3,100	1,120 r/	4,190	3,180	1,300	4,480	18,700
Total	131,000	9,250 r/	140,000	117,000	8,770	125,000	527,000
Stocks, end of quarter	107,000	10,100	117,000 r/	106,000	11,100	117,000	117,000

r/ Revised. W Withheld to avoid disclosing company proprietary data.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes acid grade used in electric furnaces, enamel, glass and fiberglass, steel castings, and welding rod coatings.

TABLE 3
U.S.IMPORTS FOR CONSUMPTION OF FLUORSPAR, BY COUNTRY 1/ AND VALUE 2/ 3/

(Metric tons unless otherwise specified)

	Fourth quarter 1995		First quarter 1996		Second quarter 1996		Third quarter 1996		Fourth quarter 1996		Total year to date	
	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)
Containing more than 97% calcium fluoride:												
Austria	--	--	--	--	--	--	175	\$58	173	\$39	348	\$97
China 4/	82,800	\$11,000	146,000	\$20,700	48,600	\$7,110	98,700	14,300	62,800	9,040	356,000	51,200
France	73	39	18	9	--	--	36	19	--	--	54	28
Germany	--	--	--	--	(5/)	(5/)	(5/)	(5/)	(5/)	(5/)	(5/)	(5/)
Mexico	6,700	918	3,580	506	4,550	631	5,810	788	4,180	602	18,100	2,530
Morocco	114	32	--	--	--	--	--	--	--	--	--	--
South Africa	15,600	1,840	20,500	2,510	42,800	5,760	15,900	2,270	20,300	2,710	99,600	13,300
United Kingdom	--	--	--	--	--	--	(5/)	(5/)	(5/)	(5/)	(5/)	(5/)
Total	105,000	13,800	170,000	23,800	96,000	13,500	121,000	17,400 r/	87,400	12,400	474,000	67,100
Containing not more than 97% calcium fluoride:												
Canada	--	--	53	16	70	23	83	28	157	55	363	122
China	8,370	1,020	--	--	--	--	--	--	--	--	--	--
Germany	--	--	--	--	--	--	--	--	194	20	194	20
Mexico	8,830	820	9,300	883	21,600	2,070	6,010	575	1,390	133	38,300	3,660
Total	17,200	1,840	9,350	889	21,700	2,100	6,090	603	1,740	208	38,900	3,810

r/ Revised.

1/ Imports for consumption include imports of immediate entry, and warehouse withdrawals.

2/ C.i.f. at U.S. ports.

3/Data are rounded to three significant digits; may not add to totals shown.

4/ Data does not agree with published Bureau of the Census data due to adjustments made by the U.S. Geological Survey.

5/Data revised to zero.

Source: Bureau of the Census.

TABLE 4
IMPORTS FOR CONSUMPTION OF HYDROFLUORIC ACID 1/

(Metric tons unless otherwise specified)

	Fourth quarter 1995		First quarter 1996		Second quarter 1996		Third quarter 1996		Fourth quarter 1996		Total year to date 1996	
	Quantity	Value 2/ (thousands)	Quantity	Value 2/ (thousands)	Quantity	Value 2/ (thousands)	Quantity	Value 2/ (thousands)	Quantity	Value 2/ (thousands)	Quantity	Value 2/ (thousands)
Canada	17	\$57	17	\$71	32	\$105	39	\$99	18	\$63	106	\$338
France	18	20	55	59	54	57	107	124	56	64	272	304
Germany	35	82	50	96	20	45	23	73	72	118	165	332
Japan	112	435	79	286	174	643	138	519	198	710	589	2,160
Mexico	11,900	10,700	20,500	18,800	26,200	24,600	22,800	21,300	11,700	11,000	81,200	75,700
Total	12,100	11,300	20,700	19,300	26,500	25,400	23,100	22,100	12,100	12,000	82,300	78,800

1/Data are rounded to three significant digits; may not add to totals shown.

2/ C.i.f. at U.S. ports.

Source: Bureau of the Census.